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# PATENTS ABSTRACTS OF JAPAN

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## (54) MOUNTING APPARATUS OF FLIP-CHIP

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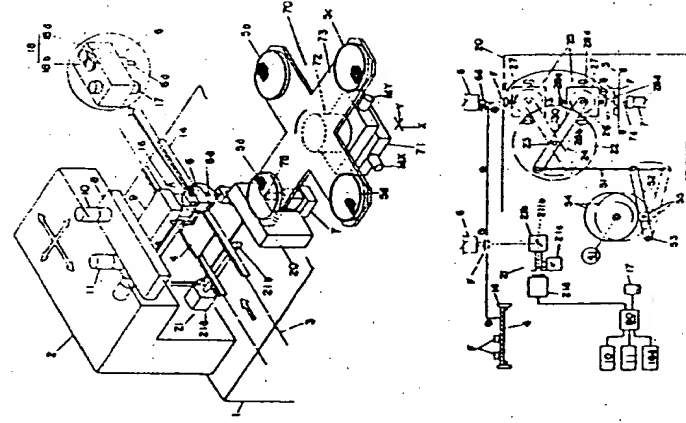
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**PURPOSE:** To surely take up a plurality of types of flip-chips and to mount them on a board by a method wherein a nozzle selection apparatus is operated, a desired nozzle is situated in an operation position and the flip-chips are held by suction of this nozzle.

**CONSTITUTION:** The following are provided: a supply device 70 of flip-chips; a chip holding device 25 provided with a plurality of nozzles 28 which hold a flip-chip F at the formation face of a bump B by suction and take it up; and rotary devices 22, 26, 30, 41, 51, 52, 54 which turn the chip holding device 25 in such a way that the surface and the rear of the taken-up chip F are reversed. In addition, the following are installed: nozzle selection devices 22, 24 which situate the arbitrary nozzle 28 out of a plurality of nozzles 28 in its operation position; a transfer head 6 which holds the reversed chip F to a non-formation face to the bump B, takes it up and transfers and mounts the chip F onto a board 4 positioned in a positioning part 14. Thereby, it is possible to surely take up a chip corresponding to a type of the flip-chip F and to mount it on the board 4.



## LEGÉNDÉ zu den Bibliographiedaten

(54) Titel der Patentanmeldung

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